Burns and scalds

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Some of the causes of burns include flame, UV radiation, hot liquids, electricity, lightning and certain chemicals. Major burns are a medical emergency and require urgent treatment. First aid treatment is to apply cold running water over the burn site for 20 minutes.

Types of burns

There are three levels of burns:
- **Superficial** – these burns cause damage to the first or top layer of skin only. The burn site will be red and painful.
- **Partial thickness** – these burns cause damage to the first and second skin layers. The burn site will be red, peeling, blistered and swelling with clear or yellow-coloured fluid leaking from the skin. The burn site is very painful.
- **Full thickness** – involves damage to both the first and second skin layers, plus the underlying tissue. The burn site generally appears black or charred with white exposed fatty tissue. Very deep burns may damage the underlying muscle or bone. The nerve endings are generally destroyed and so there is little or no pain at the site of the full-thickness burn. However, surrounding partial thickness burns will be very painful.

It can be difficult to tell the difference between partial and full-thickness burns. The depth of a burn is not critical in the initial treatment of burns. An assessment of the extent of the burn is more important initially.

First aid for burns

Remove the person from danger and further injury. Hold the burn under cold running water for 20 minutes. If necessary, prevent heat loss by covering unburnt areas.

Burnt clothing should only be removed if it does not stick to the burn. Do not remove clothing that is stuck to the burn.

Chemicals, such as acids and alkalis, must be washed off with running water for at least 20 minutes but take care not to splash the chemicals onto unaffected skin or other people. A cool shower is ideal.

Superficial burns require pain relief, dressings, and regular review to make sure they have not become infected.

Do not apply anything other than water to second or third degree burns until they are fully cooled and medically assessed.

A major burn is defined as a burn of any depth that involves more than 20 per cent of the total body surface area for an adult and more than 10 per cent of the total body surface area for a child.

Major burns are a medical emergency and require urgent treatment. Immediately apply cold water to all affected areas and then call triple zero (000) for an ambulance. A cool or lukewarm shower is ideal.

Complications of major burns

Some of the potential complications of major burns include:
- **injury to lungs** from smoke inhalation
- **hypovolaemia** – loss of fluid from burnt skin. This may lead to shock
- **heat loss (hypothermia)** – since burnt skin is unable to properly regulate body temperature
- **infection**.

Treatment for burns

The medical treatment you will receive on admission to the hospital emergency department could include:

- pain relief. morphine may be required
- a cool shower
- intravenous fluids through a drip
- intensive medical monitoring.
Admission to a burns unit

There are national guidelines that help hospital emergency department staff decide whether you need care in a specialised burns unit.

Some of these guidelines include:

- for adults – partial or full thickness burns over 10 per cent of the body surface
- for children – partial or full thickness burns over five per cent of the body surface
- respiratory burns – lungs or other parts of the breathing system affected
- circumferential burns – burns that go right around the body
- burns to hands, feet, face, perineum and joints
- electrical burns
- chemical burns.

Skin graft surgery

If the body is not able to heal the injury by itself, skin grafts will be needed. The specifics of skin graft surgery depend on the location and severity of your burns. Skin grafts are usually performed under anaesthetic in an operating theatre.

Self-care for burns

Be guided by your doctor, but general suggestions include:

- Rest as much as you can.
- Follow all self-care instructions from your doctor.
- Try to avoid moving or stretching the area, as you may injure your skin graft.
- Antibiotics are usually prescribed to reduce the risk of infection. Make sure you take the full course.
- Avoid getting your dressings wet.
- See your doctor immediately if you experience any unusual symptoms.

Where to get help

- In the case of a major burn – or where breathing has been affected – call triple zero (000) for an ambulance
- Your doctor
- Emergency department of your nearest hospital
- Burns unit

References

- Burns, Queensland Health. More information here.
- Surgical grafts, Burn Survivor Resource Centre. USA. More information here.

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Please note that we cannot answer personal medical queries. If you are looking for health or medical advice we recommend that you:

- talk to your doctor or pharmacist
- dial triple zero (000) in an emergency
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More information

First Aid

The following content is displayed as Tabs. Once you have activated a link navigate to the end of the list to view its associated content. The activated link is defined as Active Tab

- First aid basics
- Emergency situations
- Common symptoms
- Burns breaks and falls
- Wounds cuts and bleeding
- Bites and stings
- Heat and cold

First aid basics

- Some knowledge of basic first aid can mean the difference between life and death...
- Asthma emergency first aid
  
  Asthma attacks need urgent emergency first aid. In an emergency, always call triple zero (000)...
- Bites and stings – first aid
  
  If you are bitten or stung by an insect or animal, apply first aid and seek medical treatment as soon as possible...
- Cardiopulmonary resuscitation (CPR)
CPR is a life-saving skill that everyone should learn from an accredited organisation.

- **First aid kits**
  
  Your first aid kit should be organised, properly stocked and available at all times.

### Emergency situations

- **Allergic reactions emergency first aid**
  
  Severe allergic reactions (anaphylaxis) and asthma attacks need urgent emergency first aid. In an emergency, always call triple zero (000).

- **Allergies to bites and stings**
  
  Allergies to insect stings and bites range from milder allergic reactions to life-threatening, severe allergic reactions (anaphylaxis).

- **Anaphylaxis**
  
  Anaphylaxis is a severe allergic reaction that requires urgent medical attention.

- **Choking**
  
  Don't slap a choking person on the back while they are upright - gravity may cause the object to slip further down their windpipe.

- **Diabetic coma**
  
  Diabetic coma is a medical emergency and needs prompt medical treatment.

- **Drug overdose**
  
  Alcohol, medications, illegal drugs and some herbal remedies can all cause damage if an overdose is taken.

- **Electric shock**
  
  Always disconnect the power supply before trying to help a victim of electric shock.

- **Epilepsy - first aid and safety**
  
  Good seizure management is an important part of reducing the risks associated with epilepsy.

- **Head and spinal injuries first aid**
  
  Head injuries can be serious and require urgent medical attention. A hard blow to the head from a fall, knock or assault can injure the brain, even when there are no visible signs of trauma to the.

- **Head injuries and concussion**
  
  There is no specific treatment for mild head injury other than plenty of rest, and not overdoing things.

- **Heart attack**
  
  Heart attack is an emergency. If you have warning signs of heart attack, get help fast. Call triple zero (000) and ask for an ambulance.

- **Heat stress – preventing heatstroke**
  
  Heatstroke is a life-threatening emergency that can be avoided by following simple prevention measures.

- **How drugs affect your body**
  
  Drugs affect your body’s central nervous system. They affect how you think, feel and behave.

- **Mushroom poisoning**
  
  Contrary to popular belief, there is no home test that can distinguish between edible and poisonous varieties of wild fungi or mushrooms.

- **Poisoning and child safety**
  
  Call the Poisons Information Centre on 13 11 26 immediately if you suspect your child has been poisoned or given the wrong medicine or the wrong dose of medicine.

- **Shock**
  
  Shock is when there is not enough blood circulating in the body. It is a life-threatening medical emergency.

- **Stroke explained**
  
  A stroke interrupts blood flow to an area of the brain and is a medical emergency.

### Common symptoms

- **Abdominal pain in adults**
The type of pain felt in the abdomen can vary greatly.

- Abdominal pain in children
  Children may feel stomach pain for a range of reasons and may need treatment.

- Bleeding
  Bleeding may be minor or it may be a life-threatening medical emergency.

- Chest pain
  If in doubt about the cause of your chest pain, call an ambulance.

- Coughing and wheezing in children
  Coughing and wheezing in babies can be distressing for you and your baby, but in most cases symptoms can be relieved at home.

- Diarrhoea
  Acute diarrhoea in babies and young children can be life threatening.

- Fainting
  Common causes of fainting include heat, pain, distress, the sight of blood, anxiety and hyperventilating.

- Fever - children
  Fever is a way in which the body fights infection. A fever is not dangerous and does not always indicate a serious illness.

- Muscle cramp
  A muscle cramp is an uncontrollable and painful spasm of a muscle.

- Poisoning and child safety
  Call the Poisons Information Centre on 13 11 26 immediately if you suspect your child has been poisoned or given the wrong medicine or the wrong dose of medicine.

**Burns breaks and falls**

- Ankle sprain
  Ankle sprain is a common sports injury caused by overstretching and tearing the supporting ligaments.

- Bone fractures
  Common sites for bone fractures include the wrist, ankle and hip.

- Burns and scalds
  Immediate first aid for all burns is to hold the burn under cool running water for at least 20 minutes.

- Burns and scalds - children
  Most hot tap water scald injuries to children happen in the bathroom.

- Dental injuries - knocked out teeth
  A knocked out permanent tooth can survive if it is immediately put back. Do not put a knocked-out baby tooth back.

- Eye injuries - chemical burns
  Always wear safety goggles or a face shield when handling liquid or powder chemicals.

- Eye injuries - foreign body in the eye
  Don't try to remove a foreign body from your eye. Go to your doctor or hospital emergency department for help.

- Eyes - flash burns
  Flash burns are like sunburn in the eye and can affect both your eyes. Find out more.

- Head injuries and concussion
  There is no specific treatment for mild head injury other than plenty of rest, and not overdoing things.

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Wounds, cuts and bleeding

- **Blisters**
  A blister is one of the body's responses to injury or friction.

- **Needlestick injury**
  A needlestick injury means the skin is accidentally punctured by a used needle. Diseases that could be transmitted by a needle or needlestick injury include human immunodeficiency virus (HIV).

- **Nosebleeds**
  Bleeding from the nose is common in children and is usually not severe or serious.

- **Skin cuts and abrasions**
  The body begins repairing a wound immediately and the process may continue for days, weeks, months or even years.

- **Wounds - how to care for them**
  Chronic wounds are more likely to heal if they are treated with moist rather than dry dressings.

Bites and stings

- **Bites and stings – first aid**
  If you are bitten or stung by an insect or animal, apply first aid and seek medical treatment as soon as possible.

- **Allergies to bites and stings**
  Allergies to insect stings and bites range from milder allergic reactions to life-threatening, severe allergic reactions (anaphylaxis).

- **Animals and child safety**
  Children should always be closely supervised near animals and taught how to behave safely around pets.

- **Bedbugs**
  Bedbugs have highly developed mouth parts that can pierce skin.

- **Body lice**
  Body lice can spread from one person to another when the environmental conditions are crowded and unhygienic.

- **European wasp**
  Unlike a bee, which can only sting once (and leaves the stinger behind in the skin), the European wasp can sting repeatedly.

- **Fleas**
  Fleas are parasites that feed off the blood of humans and animals, and can spread infection.

- **Spiders**
  Australia has about 2,000 species of spider but most species are relatively harmless to humans.

Heat and cold

- **Frostbite**
  Exhaustion, hunger and dehydration further lower the body's defences against frostbite.

- **Heat stress and heat-related illness**
  Heat kills more Australians than any natural disaster. Find out how you can treat and prevent heat-related illness.

- **Heat stress and older people**
  People aged 65 years and over are at increased risk of heat-related illnesses and need special care in hot weather.

- **Heat stress – preventing heatstroke**
  Heatstroke is a life-threatening emergency that can be avoided by following simple prevention measures.

- **Hot weather and child safety**
  Babies and children can quickly lose body fluids in hot weather, which can lead to dehydration.

- **Hypothermia**

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The early responses to hypothermia will be moving around, seeking shelter, hair standing on end (goosebumps) and shivering...

- **Snow sports and cold-related injuries**

You can help reduce your risk of winter sports injuries with planning, preparation and proper equipment...

**Related Information**

- **Burns and scalds - children**

  Most hot tap water scald injuries to children happen in the bathroom...

- **Frostbite**

  Exhaustion, hunger and dehydration further lower the body's defences against frostbite...

- **Electric shock**

  Always disconnect the power supply before trying to help a victim of electric shock...

- **Blisters**

  A blister is one of the body's responses to injury or friction...

- **Pressure sores**

  Pressure sores can be difficult to treat and may lead to serious complications...

**Home**

**Related information on other websites**

- **Royal Childrens Hospital - Burns**

**Content Partner**

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